

Work Order ID 148946-Split-1
Tuesday, July 12, 2016 8:58:29 AM

148946

Page 1

Item ID: D3825-043

Revision ID:

Item Name: Rib Assembly (Basket End, Lid)

Start Date: 7/7/2016 Start Qty: 6.00

Required Date: 7/12/2016 Req'd Qty: 6.00

Reference:

Approvals:

Process Plan:

DAS
21
9-89

Date: JUL 13 2016

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3825	C								

100

0.00

1000

Large Fab

Large Fab

Large Fab

Memo

0.24

1- cut D3825-3 rib as per dwg D3825

2- drill hole (3/16") in D3825-3 using DT9822 jig and open to finish size as per dwg D3825

3- c'sink hole as per dwg

4- remove identification markings

5- deburr

6- weld D2327-1 spacer & D4021-9 bushing as per dwg D3825
A/R S.S. Rod Batch: 133984

7- grind bushing weld flush where indicated on dwg D3825

8- deburr if necessary

→ 8 DG 2017/6/12
C. 17.1.18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			

Root Cause	FAULT CATEGORY		
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐
		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____			

Work Order ID 148946

Tuesday, July 12, 2016 8:58:29 AM

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Page 2

Item ID: D3825-043**Revision ID:****Item Name:** Rib Assembly (Basket End, Lid)**Start Date:** 7/7/2016 **Start Qty:** 6.00**Required Date:** 7/12/2016 **Req'd Qty:** 6.00**Reference:***SPLIT* Accept***N900040100*****Setup Start *NS1*****Stop *NS2*****Cust Item ID:****Customer:****6**
6**Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Run Start *NR1*****Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
130						<u>5</u>	<u>17.1.18</u>		<u>CPC</u>
QC	Memo	0.00							
Quality Control									
140	QC5- Inspect part completeness to step on W/O	0.00							
140						<u>5</u>	<u>17.1.18</u>		<u>CPC</u>
QC	Memo	0.02							
Quality Control									
150	Identify as per dwg & Stock Location: <u>WAC</u>	0.00							
150						<u>5</u>	<u>17.1.18</u>		<u>CPC</u>
Packaging	Memo	0.01							
Packaging	LOCATION WA004								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

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Page 3

Reference:

Stop *NR2*

**Insp.
Stamp**

0.00

160

QC

Memo

0.10

Quality Control

JAN 19 2017

DAS
21
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only: ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

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Page 1

Work Order ID: 148946

148946

Parent Item: D3825-043

D3825-043

Parent Item Name: Rib Assembly (Basket End, Lid)

Start Date: 7/7/2016

Required Date: 7/12/2016

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP REV:A 12.07.24 AS PER REV.B DD VERF:EC IPP
REV:B 12.08.08 AS PER DWG REV.C DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2327-1

Manufactured

No

100

Each

14.0000

1

6

D2327-1

Spacer Bushing

**

Cj 17-01-18

Location

Loc Qty

Loc Code

WA004

14

B153766 → 2

144389

14

3

D4021-9

Manufactured

No

100

Each

180.0000

2

12

D4021-9

Bushing

**

Cj 17-01-18

Location

Loc Qty

Loc Code

WA004

180

145800

70

147436

65

147639

45

B152261 → 16

M304TS0.750W.065

Purchased

No

100

f

984.7874

2.125

13.42105

M304TS0 750W 065

304 SQ Tube .75x.75x.065W

**

DC 2017/01/12

Location

Loc Qty

Loc Code

WA004

984.787362

B136378

m132270

35.88

m132924

4.177362

m133412

482

m133757

62.73

m134696

400

18

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

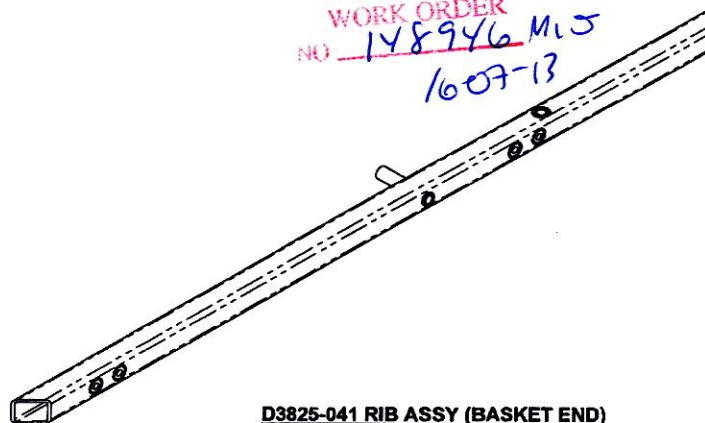
QA Closed: _____ Date: _____

Work Order update only ☐

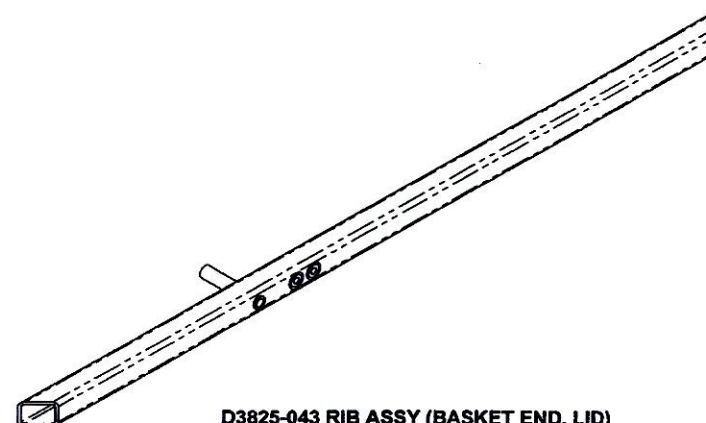
Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐	☐	Pressure/Forced ☐	☐	Temperature/Cure ☐	☐	Power Loss/Surge ☐	☐	Positioned Wrong ☐	
Design ☐	☐	Operator ☐	☐	Bending ☐	☐	Set-up ☐	☐	Folio/Program ☐	☐	Outside Dimensions ☐	
Doc/Data ☐	☐	Offset/Setup ☐	☐	Centre Not Concentric ☐	☐	BOM/Route ☐	☐	Grain ☐	☐	Over/Under tolerance ☐	
Equip/Tooling ☐	☐	Supplier ☐	☐	Cracks ☐	☐	Broken/Damage/Defect ☐	☐	Weld ☐	☐	Part Incorrect ☐	
Handling/Pre ☐	☐	Training ☐	☐	Crimp/Kink/Ripple/Wave ☐	☐	Inspection Incomplete/Unqualified ☐	☐	Wrong Stock Pulled ☐	☐	Part Lost/Missing ☐	
Material ☐	☐	Use for Testing ☐	☐	Cuffs ☐	☐	Contamination ☐	☐	Out of Sequence ☐	☐	Part Moved ☐	
Internal Transport ☐	☐	Poor Information ☐	☐	Crushing ☐	☐	Countersink ☐	☐	Off-set ☐	☐	Drawing ☐	
Tribal Knowledge ☐	☐	Rushing ☐	☐	Heat Treat ☐	☐	Cut Too Short ☐	☐	Mislabeled ☐	☐	Finish ☐	
LOA ☐	☐	Product Improvement ☐	☐	Wave/Twist in Tube ☐	☐	Instructions Incomplete/Unclear ☐	☐	Fit/Function ☐	☐	Misread ☐	
Substation ☐	☐	Process Improvement ☐	☐	Marks/Chatter ☐	☐	Drill Holes ☐	☐	Misaligned/off center ☐	☐	Turning Sequence ☐	
Past Expiry Date ☐	☐	Manufacturing Process ☐	☐	OTHER : _____							
Misidentified ☐	☐	Past Due ☐	☐								

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO 148946 M15
1607-13



D3825-041 RIB ASSY (BASKET END)



D3825-043 RIB ASSY (BASKET END, LID)

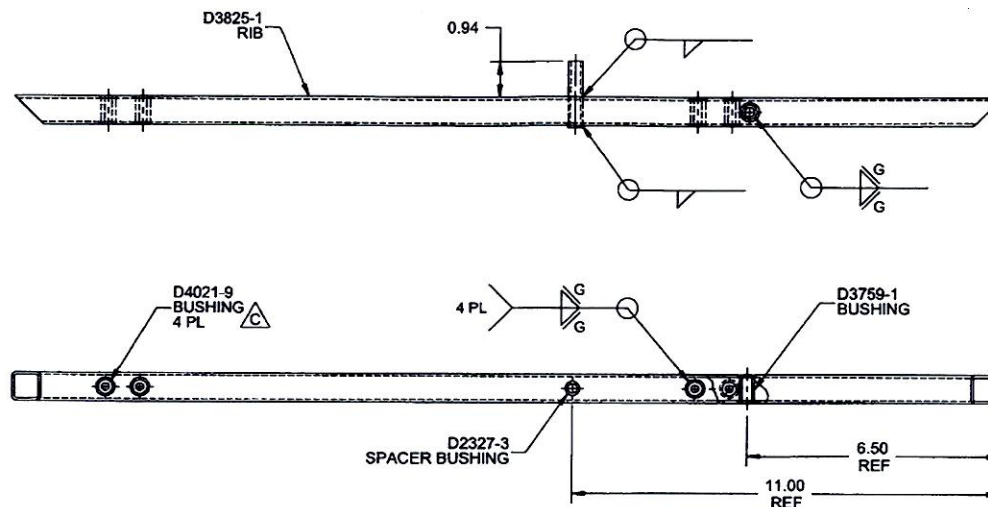
ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
	X		D3825-041	RIB ASSEMBLY (BASKET END)
		X	D3825-043	RIB ASSEMBLY (BASKET END, LID)
1		1	D2327-1	SPACER BUSHING
2	1		D2327-3	SPACER BUSHING
3	1		D3759-1	BUSHING
4	1		D3825-1	RIB
5		1	D3825-3	RIB
6	4	2	D4021-9	BUSHING

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D3825-041 = 1.27 lbs; D3825-043 = 1.23 lbs
- 8) WELDING: PER DART QSI 004

RELEASED
2012-08-03

C	QTY(4) D4021-9 ON -041 AND QTY(2) D4021-9 ON -043 WERE D3759-1. CORRECTED DIM (ZIN B3-4) WAS 14.875. REASON FOR CHG: AND SIZE BOLTS REQ'D IN THOSE LOCATIONS.	MB	12.07.18
B	QTY(5) FOR D3759-1 WAS QTY(1): AFFECTS D3825-041/-1 (ZNS D3-1, C4-2, C3-2, D4-4, C6-4, C4-4, C3-4). ADDED D3825-043/-3. REASON: PAR10-50.	MB	12.05.11
A	NEW ISSUE	MB	08.09.23
REV.	DESCRIPTION	BY	DATE
DESIGN	DL	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DL	DRAWING NO. D3825	REV. C SHEET 1 OF 4
CHECKED	AP	TITLE RIB ASSY (BASKET END)	SCALE NTS
MFG. APPR.	DL	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY FORM WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
APPROVED	DL		
DE APPR.	DL		
DATE	12.07.18		



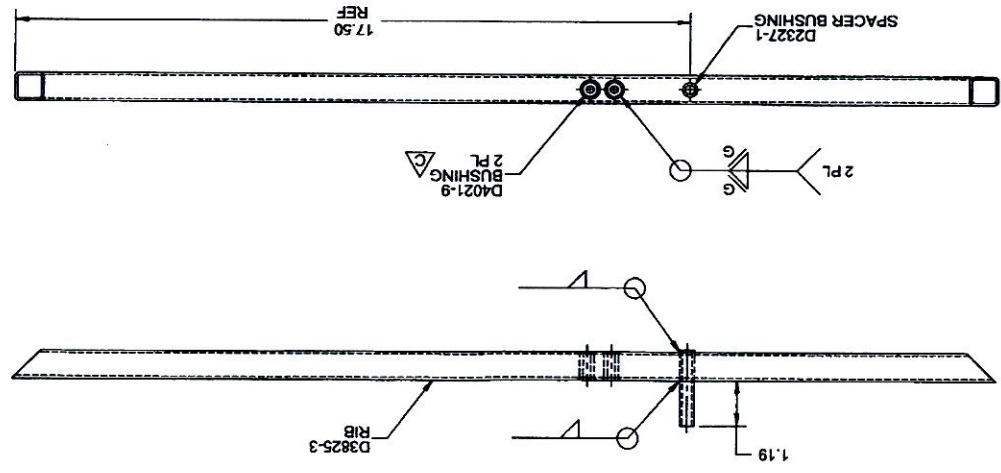
D3825-041 RIB ASSY (BASKET END)

RELEASED
2012-03-03
JMP

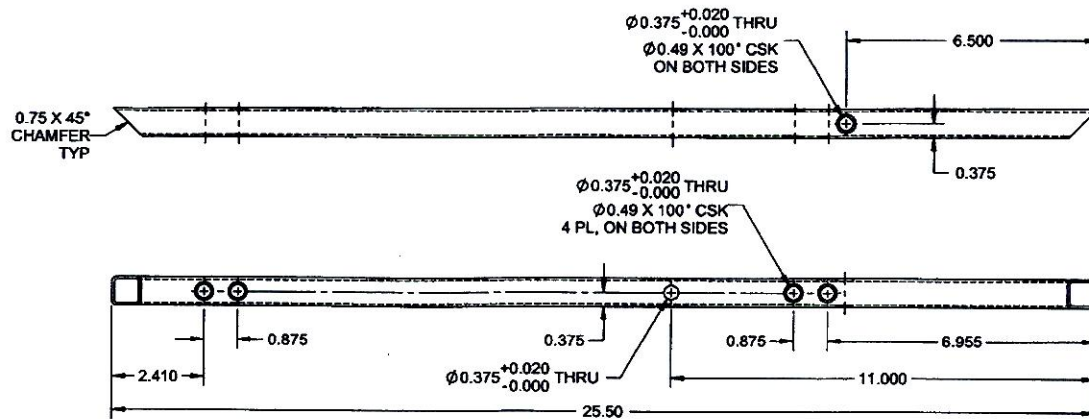
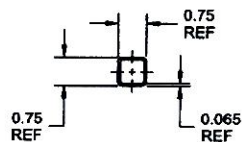
DESIGN	1	DART AEROSPACE LTD	
DRAWN	1	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AB	DRAWING NO.	REV. C
MFG. APPR.	JMP	D3825	SHEET 2 OF 4
APPROVED	JMP	TITLE	SCALE
DE APPR.	JMP	RIB ASSY (BASKET END)	NTS
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DESIGN	DATE	12.07.18
DRAWN	DE APPR.	
CHECKED	APPROVED	
DRAWING NO.	MFG. APPR.	
D3825		
REV. C		
SHEET 3 OF 4		
SCALE		
NTS		
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RIB ASSY (BASKET END)		
DART AEROSPACE LTD		
HAWKESBURY, ONTARIO, CANADA		

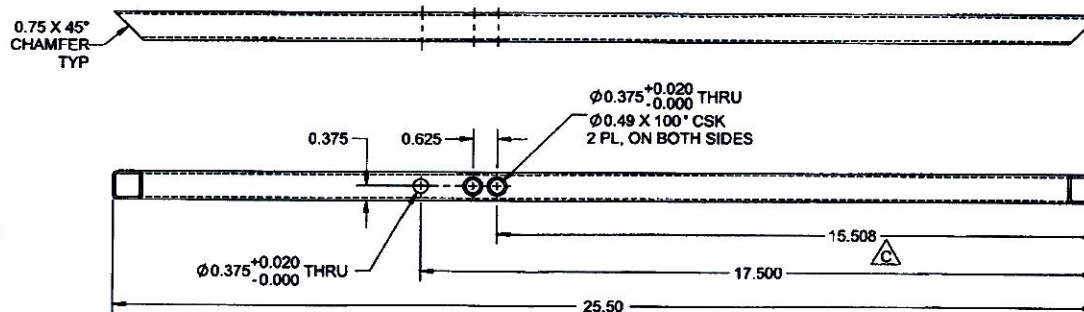
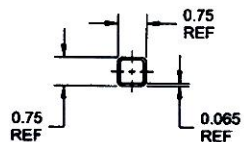
D3825-043 RIB ASSY (BASKET END, LID)



RELEASE
2017-08-03



D3825-1 RIB



D3825-3 RIB

RELEASE
2012-08-03
WJD

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SQUARE TUBE, 0.75 X 0.75 X 0.065 WALL
REF. DART SPEC. M304TS0.750W.065
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.16 lbs

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3825	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		RIB ASSY (BASKET END)	NTS
DATE	12.07.18	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PROPRIETARY AND IS SUPPLIED UNDER A LICENSED AGREEMENT. IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	